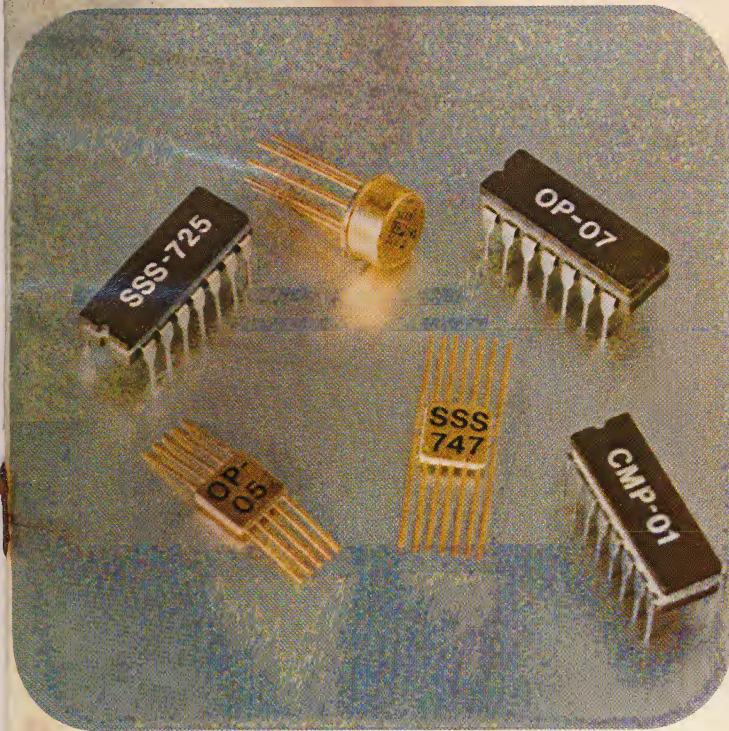
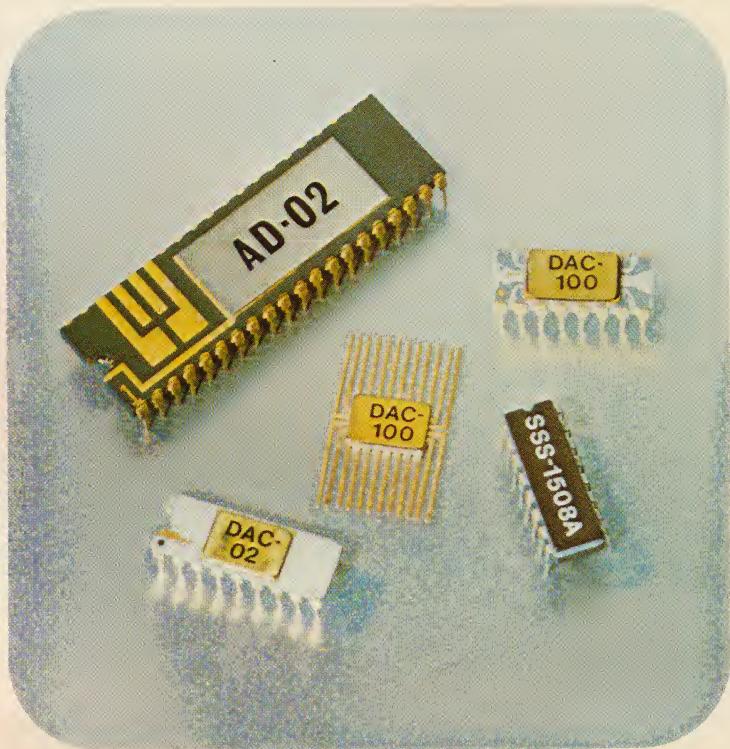


Precision Monolithics Condensed Catalog Winter-Spring, 1976



Apr '77



Linear and Conversion Products

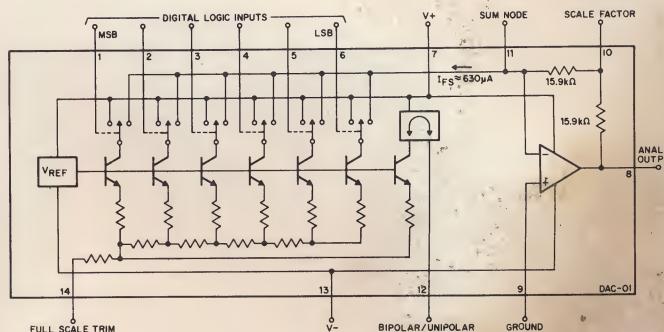


INDUSTRY'S BROADEST LINE OF MONOLITHIC D/A CONVERTERS

DAC-01 — 6 BIT COMPLETE DAC

COMPACT, EASY-TO-USE D/A CONVERTER

- INCLUDES REFERENCE AND OP AMP
- 7 BIT ACCURACY $\pm 1/4$ LSB NONLINEARITY
- 3 MICROSECOND SETTLING TIME
- -55° TO +125°C AND 0° TO 70° MODELS
- STANDARD SUPPLIES $\pm 12V$ TO $\pm 18V$
- PIN-SELECTED OUTPUTS +10V, $\pm 10V$, $\pm 5V$
- COMPACT 14 PIN DIP



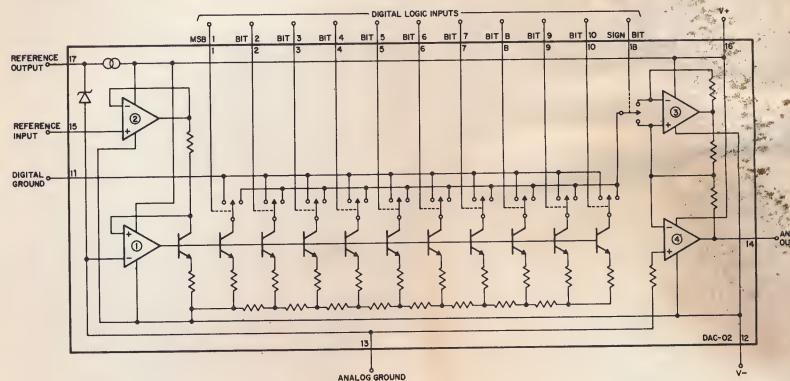
ORDERING INFORMATION

Model	Package	Temp Range (°C)	Max Nonlinearity Over Temp (%)	Max Full Scale Tempco (ppm/°C)	Bipolar Output Option
	14 Pin Hermetic DIP				
DAC-01A	Y	-55/+125	± 0.30	40	Yes
DAC-01	Y	-55/+125	± 0.45	80	Yes
DAC-01B	Y	-55/+125	± 0.45	120	Yes
DAC-01F	Y	-55/+125	± 0.45	80	No
DAC-01C	Y	0/-70	± 0.45	160	Yes
DAC-01H	Y	0/+70	± 0.45	160	No

DAC-02 — 10 BIT PLUS SIGN D/A CONVERTER

SIGN/MAGNITUDE DIGITAL CODING

- COMPLETE WITH REFERENCE AND OP AMP
- FAST 1.5μsec SETTLING TIME
- BIPOLAR OUTPUTS $\pm 10V$, $\pm 5V$
- MONOTONICITY GUARANTEED OVER 0° TO 70°C
- STABLE 60 PPM/°C MAX FS TEMP CO
- STANDARD SUPPLIES $\pm 12V$ TO $\pm 18V$ SUPPLIES
- COMPACT 18 PIN DIP PACKAGE



ORDERING INFORMATION

Model	Output Voltage Option Suffix		Resolution (Bits)	Monotonicity (0° to 70°C) (Bits)	Max Nonlinearity (0° to 70°C)	Max Full Scale Tempco (ppm/°C)
	±10V	±5V				
DAC-02AC	X1	X2	10 + Sign	10	$\pm 0.1\%$	60
DAC-02BC	X1	X2	10 + Sign	9	$\pm 0.1\%$	60
DAC-02CC	X1	X2	10 + Sign	8	$\pm 0.2\%$	60
DAC-02DD	X1	X2	10 + Sign	7	$\pm 0.4\%$	150



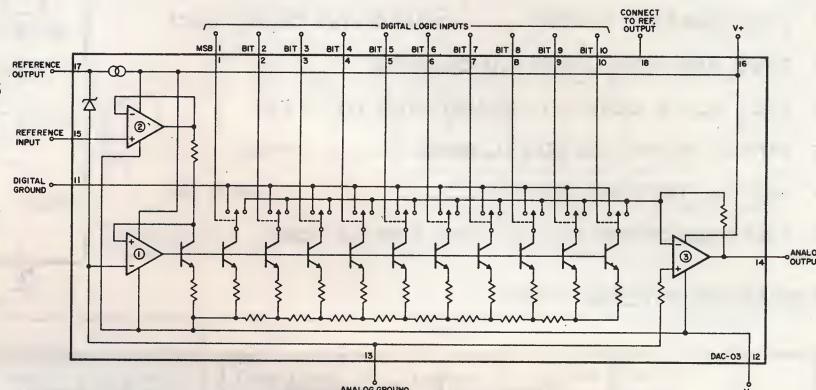
**PRECISION
MONOLITHICS**
INCORPORATED

INDUSTRY'S BROADEST LINE OF MONOLITHIC D/A CONVERTERS

DAC-03 — 8 & 10 BIT LOW COST D/A CONVERTER

LOWEST COST COMPLETE MONOLITHIC DAC

- COMPLETE WITH REFERENCE AND OP AMP
- UNIPOLAR OUTPUTS +10V, +5V MODELS
- FAST 1.5 μ sec SETTLING TIME
- TTL, DTL, CMOS COMPATIBLE LOGIC LEVELS
- STANDARD POWER SUPPLIES $\pm 12V$ TO $\pm 18V$
- LOW POWER CONSUMPTION 350mW MAX
- COMPACT 18 PIN DIP PACKAGE



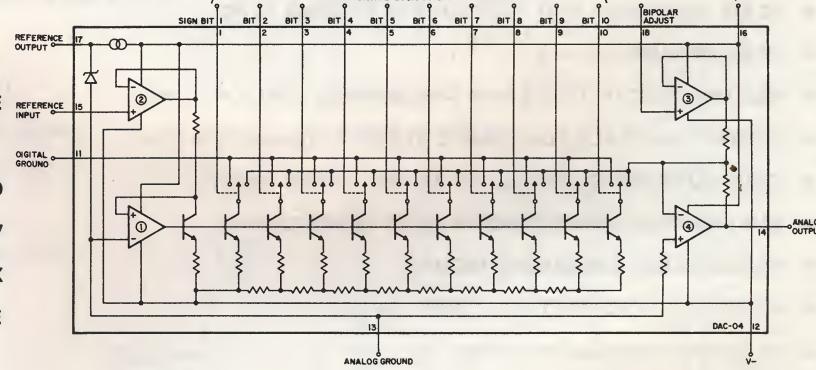
ORDERING INFORMATION

Model	Output Voltage Option Suffix		Resolution (Bits)	Monotonicity (Bits)	Max Nonlinearity @ 25°C (%)	Logic Input Current (μ A)
	+10V	+5V				
DAC-03AD	X1	X2	10	10	± 0.1	1
DAC-03BD	X1	X2	10	9	± 0.1	1
DAC-03CD	X1	X2	10	8	± 0.2	1
DAC-03DD	X1	X2	10	7	± 0.4	1

DAC-04 — 10 BIT TWO'S COMPLEMENT DAC

TWO'S COMPLEMENT DIGITAL CODING

- COMPLETE WITH REFERENCE AND OP AMP
- FAST 1.5 μ sec SETTLING TIME
- MONOTONICITY GUARANTEED OVER 0° TO 70°C
- STABLE 90PPM/°C MAX FS TEMP CO
- STANDARD SUPPLIES $\pm 12V$ TO $\pm 18V$
- LOW POWER CONSUMPTION 300mW MAX
- COMPACT 18 PIN DIP PACKAGE



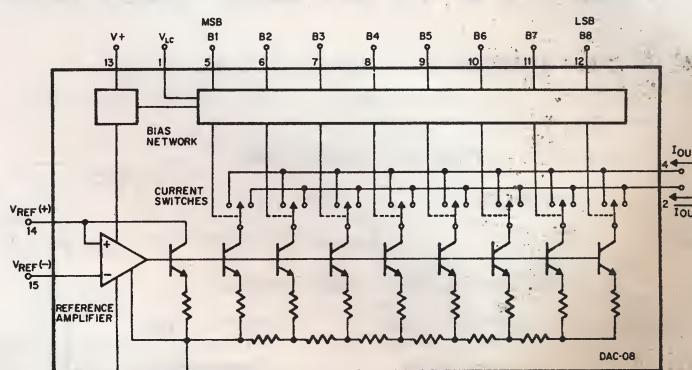
ORDERING INFORMATION

Model	Resolution (Bits)	Monotonicity (0° to 70°C) (Bits)	Max Nonlinearity (0° to 70°C)	Max Full Scale Tempco (ppm/°C)	Output Voltage (V)
DAC-04-ACX2	10	10	$\pm 0.1\%$	90	± 5
DAC-04-BCX2	10	9	$\pm 0.1\%$	90	± 5
DAC-04-CCX2	10	8	$\pm 0.2\%$	90	± 5
DAC-04-DDX2	10	7	$\pm 0.4\%$	150	± 5

DAC-08 — 8 BIT HIGH SPEED LOW COST MULTIPLYING DAC

FASTEST, MOST FLEXIBLE MONOLITHIC DAC MADE!

- **VERY FAST SETTLING 85nsec SETTLING TIME**
 - **TRUE CURRENT OUTPUT -10V TO +18V COMPLIANCE**
 - **TRUE AND COMPLEMENTED OUTPUTS**
 - **FULL SCALE CURRENT PREMATCHED TO ± 1 LSB**
 - **DIRECT INTERFACE TO TTL, CMOS, ECL, HTL, PMOS**
 - **$\pm 4.5V$ to $\pm 18V$ SUPPLIES 33mW @ $\pm 5V$**
 - **2 OR 4 QUADRANT MULTIPLYING APPLICATIONS**



ORDERING INFORMATION

Model	Temp Range (°C)	Monotonicity Over Temp (Bits)	Max Nonlinearity Over Temp (%)	Settling Time To ±1/2 LSB (nsec)	Package
DAC-08AQ	-55/+125	8	±0.1	85	All DAC-08 devices are packaged in a hermetic 16 pin DIP
DAC-08Q	-55/+125	8	±0.19	100	
DAC-08EQ	0/+70	8	±0.19	100	
DAC-08CQ	0/+70	8	±0.39	100	

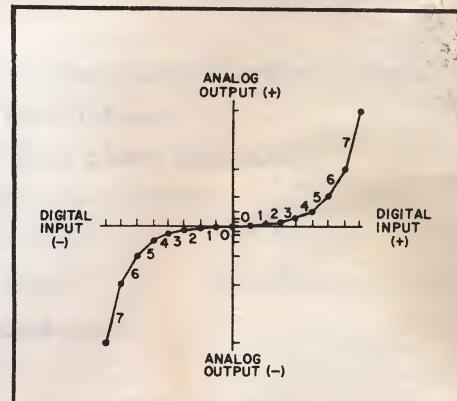
DAC-76 COMPANDING D/A CONVERTER

WIDE DYNAMIC RANGE DAC WITH EXPONENTIAL OUTPUT

IDEAL FOR 8 BIT µPROCESSOR AND TRANSDUCER INTERFACES, PCM TELEMETRY, PROCESS CONTROLLERS AND AUDIO APPLICATIONS

- 12 BIT + SIGN RANGE WITH 7 BIT + SIGN CODING
 - 12 BIT ACCURACY AND RESOLUTION AROUND ZERO
 - 72 dB DYNAMIC RANGE ($\approx 2^{12}:1$)
 - MULTIPLEXED OUTPUTS FOR TIME SHARED APPLICATIONS
 - TIGHT FULL SCALE TOLERANCE ELIMINATES CALIBRATION
 - TRUE CURRENT OUTPUTS: -5V TO +18V COMPLIANCE
 - GUARANTEED MONOTONICITY OVER TEMPERATURE
 - MULTIPLYING REFERENCE INPUTS
 - MOS/BIPOLAR COMPATIBLE LOGIC INPUTS
 - 18 PIN DUAL IN LINE PACKAGE

TRANSFER CHARACTERISTIC



ORDERING INFORMATION

Model	Temp. Range (°C)	Input Coding	Max Chord Error (Steps)	Max Full Scale Tolerance (Steps)†	Max Full Scale Drift Over Temp Range (Steps)†
DAC-76BX	-55/+125	7 Bits + Sign	±1/2	±1/2	±1/4
DAC-76X	-55/+125	7 Bits + Sign	±1	±1	±1/2
DAC-76EX	0/+70	7 Bits + Sign	±1/2	±1/2	±1/4
DAC-76CX	0/+70	7 Bits + Sign	±1	±1	±1/2

[†]In a companding D/A Converter, the term LSB is not used, since the step size is different within each chord. See data sheet for more details.



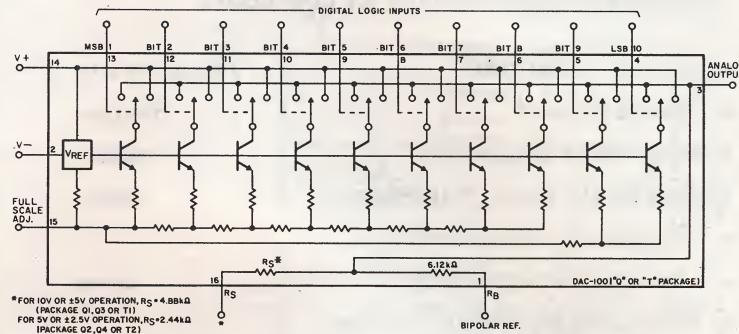
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INDUSTRY'S BROADEST LINE OF MONOLITHIC CONVERTERS

DAC-100 — 8 & 10 BIT COMPLETE CURRENT-OUTPUT DAC

INDUSTRY'S BEST SELLER — WIDE CHOICE OF SPECIFICATIONS

- INTERNAL REFERENCE TEMPCOS TO 15PPM/°C
- NONLINEARITIES TO 0.05% MAX OVER TEMP RANGE
- FAST SETTLING 225 nsec (8 BITS) 375 nsec (10 BITS)
- COMPACT 16 PIN DIP OR 24 PIN FLAT PACK
- 55°/+125°C UNITS SCREENED TO MIL-STD-883A LEVEL B
- LOW COST "T" SERIES MODELS FOR TOP VALUE
- ±6V TO ±18V SUPPLIES 80mW @ ±6V



ORDERING INFORMATION

Model	Temp Range/Package Option Suffix			Max Nonlinearity Over Temp (%)	Max Full Scale Tempco (ppm/°C)	Max Settling Time To Nonlinearity Spec (nsec)
	MIL-STD-883 Level B -55°/+125°C	-25°/+85°C Hermetic	0°/+70°C Hermetic			
DAC-100AA	—	Q7, Q8, N9	Q1, Q2	—	±0.05	15
DAC-100AB	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.05	60
DAC-100AC	—	Q7, Q8, N9	Q1, Q2	—	±0.05	30
DAC-100BA	—	Q7, Q8, N9	Q1, Q2	—	±0.1	15
DAC-100BB	Q5, Q6	Q7, Q8, N9	Q1, Q2	—	±0.1	300
DAC-100BC	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.1	60
DAC-100CC	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.2	60
DAC-100DD	—	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.3	225
						200

Note: Q1, Q3, Q5 & Q7 devices include internal feedback resistors for 10 Volt output swing operation; Q2, Q4, Q6 & Q8 devices are configured for 5 Volt output swing; N9 devices incorporate both 10V and 5V output swing capability.

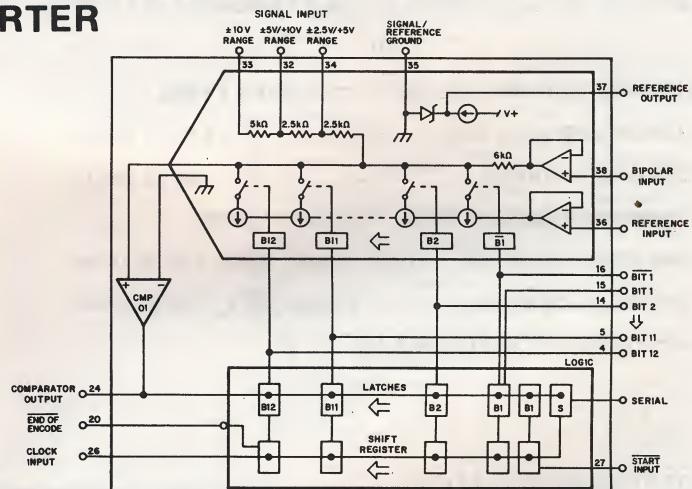
Q: 16 pin Hermetic DIP; N: 24 pin Hermetic Flatpack.

AD-02 — HIGH SPEED A/D CONVERTER

COMPLETE A/D IN A 40 PIN DIP

- GUARANTEED SPECS -55° TO +125°C AND 0° TO +70°C
- FAST 6 BITS IN 6μsec, 8 BITS IN 8μsec
- PIN-SELECTABLE RANGES ±10V, ±5V, ±2.5V
- TEMPCO OPTIONS: 60 PPM/°C AND 120 PPM/°C
- ±15V, +5V SUPPLIES 500mW PD
- PARALLEL AND SERIAL DIGITAL OUTPUTS
- MIL-STD-883A PROCESSING AVAILABLE
- .625" X 2.000" 40 PIN DIP PACKAGE

ORDERING INFORMATION



Model	Temp Range (°C)	Max Nonlinearity Over Full Temp (%)	Max Full Scale Tempco (ppm/°C)	Max Zero Scale Tempco (ppm/°C)	Resolution (Bits)
AD-02AW	-55/+125	±0.2	60	10	12
AD-02W	-55/+125	±0.2	120	10	12
AD-02EW	0/+70	±0.2	60	10	12
AD-02CW	0/+70	±0.2	120	10	12



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PRECISION OPERATIONAL AMPLIFIERS

OP-01 — LOW COST HIGH SPEED OP AMP

HIGH SPEED PERFORMANCE AT LOW COST!

- FAST SETTLING TIME 700 nsec TO 0.1%
- HIGH SLEW RATE 18V/ μ sec
- WIDE POWER BANDWIDTH 250kHz
- WIDE SMALL SIGNAL BANDWIDTH 2.5MHz
- INTERNALLY COMPENSATED
- LOW POWER CONSUMPTION 40mW
- EXCELLENT D.C. SPECIFICATIONS

ORDERING INFORMATION

Model ^t	Temp Range (°C)	Max Settling Time 0.1%, 5V (μ s)	Max Vos (mV)	Max Ios (nA)	Max I _B (nA)	Min Gain (x 10 ³)	Max P _d (mW)
OP-01	-55/+125	1.0	0.7	2.0	30	50	60
OP-01F	-55/+125	1.0	2.0	5.0	50	50	90
OP-01G	-55/+125	1.0	5.0	20	100	25	90
OP-01H	0/+70	1.0	0.7	2.0	30	50	60
OP-01E	0/+70	1.0	2.0	5.0	50	50	90
OP-01C	0/+70	1.0	5.0	20	100	25	90

^tPackages:

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix Y.

OP-02 — HIGH PERFORMANCE GENERAL PURPOSE OP AMP

DRAMATIC IMPROVEMENT OVER STANDARD 741 TYPES!

- LOW COST ELIMINATES COSTLY SELECTED TYPES
- LOW OFFSET VOLTAGE 0.5 mV (MAX)
- LOW BIAS CURRENT 30 nA (MAX)
- COMPLETE FREEDOM FROM "POPCORN" NOISE
- LOW NOISE VOLTAGE 25 nV/ $\sqrt{\text{Hz}}$ f_o = 10 Hz (TYP)
- LOW NOISE CURRENT 1.4 pA/ $\sqrt{\text{Hz}}$ f_o = 10 Hz (TYP)
- PIN-FOR-PIN 741 REPLACEMENT

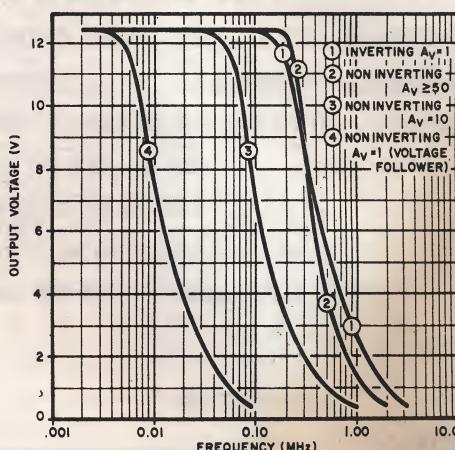
ORDERING INFORMATION

Model ^{tt}	Temp Range (°C)	Max Vos (mV)	Max TCVos (μ V/°C)	Max Ios (nA)	Max I _B (nA)	Min CMRR (dB)	Min PSRR (dB)	Min Gain (x 1000)
OP-02A	-55/+125	0.5	8.0	2.0	30	90	90	100
OP-02	-55/+125	2.0	10.0	5.0	50	90	90	50
OP-02E	0/+70	0.5	8.0	2.0	30	90	90	100
OP-02C	0/+70	2.0	10.0	5.0	50	90	90	50

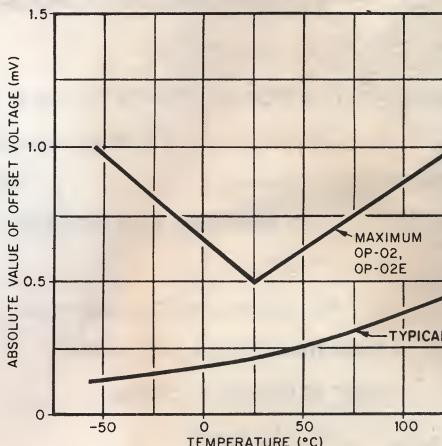
^{tt}Packages

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix Y.

LARGE SIGNAL OUTPUT SWING VS FREQUENCY



OFFSET VOLTAGE VS. TEMPERATURE





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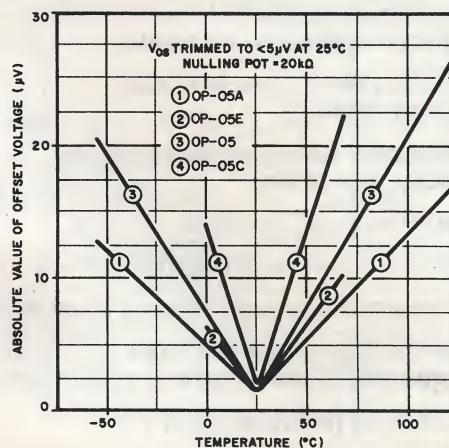
PRECISION OPERATIONAL AMPLIFIERS

OP-05 — LOW NOISE, LOW DRIFT OP AMP

MAXIMUM PERFORMANCE AT LOW COST

- NULLED TCVOS TO $0.5\mu\text{V}/^\circ\text{C}$ MAX
- NOISE VOLTAGE TO $0.6\mu\text{V}$ p-p MAX (0.1Hz TO 10Hz)
- NOISE CURRENT TO 30 pA p-p MAX (0.1Hz TO 10 Hz)
- ULTRA STABLE vs TIME $0.2\mu\text{V}/\text{MONTH}$
- LOW BIAS CURRENT 2nA MAX
- INPUT RESISTANCE $30\text{MEG}\Omega$ MIN
- HIGH COMMON MODE REJECTION 114dB MIN
- HIGH POWER SUPPLY REJECTION 110dB MIN

TRIMMED OFFSET VOLTAGE VS TEMPERATURE



ORDERING INFORMATION

Model [†]	Temp. Range (°C)	Max V_{os} @ 25°C (mV)	Max TCV_{osn} (Nulled) ($\mu\text{V}/^\circ\text{C}$)	Max. Noise Voltage 0.1Hz to 10Hz ($\mu\text{Vp-p}$)	Max I_B (nA)	Min CMRR (dB)	Max Noise Voltage @ 10Hz ($\text{nV}/\sqrt{\text{Hz}}$)
OP-05A	-55/+125	0.15	0.5	0.6	± 2.0	114	18.0
OP-05	-55/+125	0.5	1.0	0.6	± 3.0	114	18.0
OP-05E	0/+70	0.5	0.6	0.6	± 4.0	110	18.0
OP-05C	0/+70	1.3	1.5	0.65	± 7.0	100	20.0

[†]8 Pin TO-99 Package: add suffix J; 14 Pin Hermetic DIP: add suffix Y; 10 Pin Flatpack: add suffix L.

OP-07 — ULTRA-LOW OFFSET VOLTAGE OP AMP

CHOPPER PERFORMANCE AT BIPOLAR PRICES!

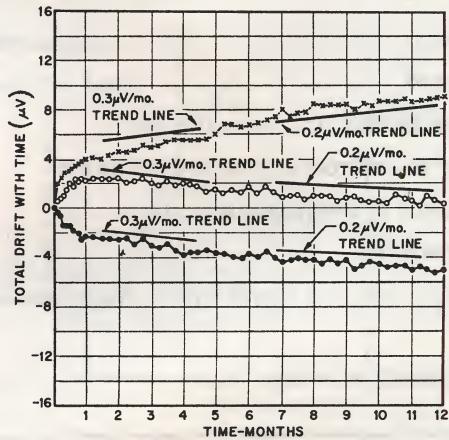
- NO CHOPPERS OR CHOPPER NOISE
- NOISE VOLTAGE $0.6\mu\text{Vp-p}$ MAX (0.1Hz TO 10 Hz)
- ULTRA-LOW V_{os} $10\mu\text{V}$
- ULTRA STABLE vs TIME $0.2\mu\text{V}/\text{MONTH}$
- ELIMINATES NEED FOR ADJUSTMENT POTENTIOMETERS
- SINGLE CHIP MONOLITHIC CONSTRUCTION
- NO EXTERNAL COMPONENTS REQUIRED
- FITS 725, 108A/308A, 741 SOCKETS

ORDERING INFORMATION

Model*	Temp. Range (°C)	Max V_{os} @ 25°C (μV)	Max V_{os} Over Temp. (μV)	Max TCV_{os} ($\mu\text{V}/^\circ\text{C}$)	Max Noise Voltage 0.1 Hz to 10 Hz ($\mu\text{Vp-p}$)	Max I_B (nA)	Min CMRR (dB)
OP-07A	-55/+125	25	60	0.6	0.6	± 2.0	110
OP-07	-55/+125	75	200	1.3	0.6	± 3.0	110
OP-07E	0/+70	75	150	1.3	0.6	± 4.0	106
OP-07C	0/+70	150	250	1.8	0.65	± 7.0	100

*8 Pin TO-99 Package: add suffix J; 14 Pin Hermetic DIP: add suffix Y.

OFFSET VOLTAGE STABILITY VS. TIME



OP-10 — DUAL MATCHED INSTRUMENT OP AMPS

DUAL OP AMPS WITH FANTASTIC MATCHING!

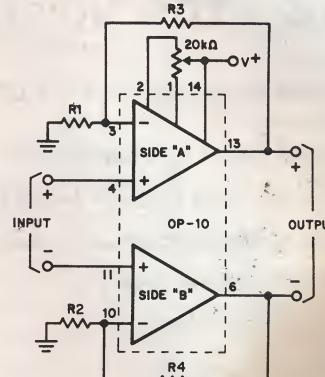
- EXCEPTIONAL ΔV_{os} MATCHING 0.18 mV MAX
- EXCELLENT $T\Delta V_{os}$ TRACKING
OVER TEMP..... 0.80 $\mu V/^{\circ}C$ MAX
- MATCHED CMRR FOR BEST COMMON
MODE REJECTION 114 dB MIN
- MATCHED I_{os+} , I_{os-} , PSRR
- PERFECT FOR INSTRUMENTATION AMPLIFIERS
- INDIVIDUAL DEVICES SIMILAR TO OP-05 TYPES
- SAVES COST AND SPACE OVER
INDIVIDUAL AMPLIFIERS 14 PIN DIP

ORDERING INFORMATION

Model*	Temp Range ($^{\circ}C$)	Max ΔV_{os} (mV)	Max $T\Delta V_{osn}$ (Nulled) ($\mu V/^{\circ}C$)	Max ΔI_{os+} (nA)	Min $\Delta CMRR$ (dB)	Max V_{os} (mV)	Max I_B (nA)
OP-10AY	-55/+125	0.18	0.8	2.8	114	0.5	± 3.0
OP-10Y	-55/+125	0.5	1.2	4.5	106	0.5	± 3.0
OP-10EY	0/+70	0.5	0.9	4.5	106	0.5	± 4.0
OP-10CY	0/+70	0.3†	0.6†	1.8†	114†	1.3	± 7.0

*Y Suffix = 14 pin DIP package

†Typical



HIGH INPUT IMPEDANCE DIFFERENTIAL-IN
DIFFERENTIAL-OUT AMPLIFIER

CMP-01/CMP-02 — FAST PRECISION COMPARATORS

MOST ACCURATE VOLTAGE COMPARATORS AVAILABLE!

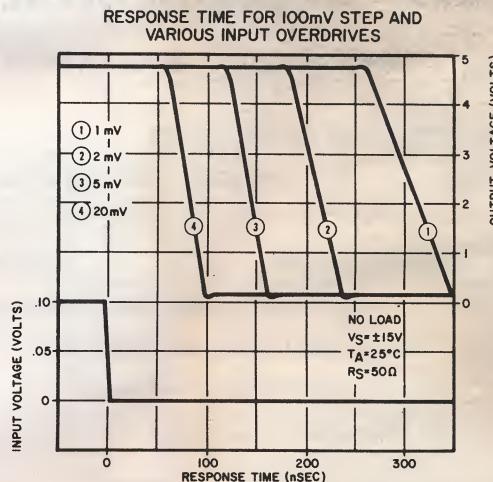
- CMP-01..... 90 nsec RESPONSE TIME
- CMP-02..... 50 nA MAX BIAS CURRENT
- LOW OFFSET VOLTAGE AND DRIFT
- $\pm 5V$ TO $\pm 18V$ OR SINGLE +5V OPERATION
- DRIVES TTL WITHOUT PULL-UP
- HIGH GAIN
- IDEAL FOR A/D CONVERTERS, PRECISION APPLICATIONS

ORDERING INFORMATION

Model*	Range ($^{\circ}C$)	Rise Time (t_r) 5 mV Over-drive (ns)	Max I_B (nA)	Max V_{os} (mV)	TC V_{osn} ($\mu V/^{\circ}C$)	Max I_{os} (nA)	Min Gain (x 1000)
CMP-01	-55/+125	90	600	0.8	1.0	25	200
CMP-01E	0/+70	90	600	0.8	1.0	25	200
CMP-01C	0/+70	90	900	2.8	1.2	80	100
CMP-02	-55/+125	160	50	0.8	1.0	3.0	200
CMP-02E	0/+70	160	50	0.8	1.0	3.0	200
CMP-02C	0/+70	160	100	2.8	1.2	15	100

*Packages:

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix "Y".





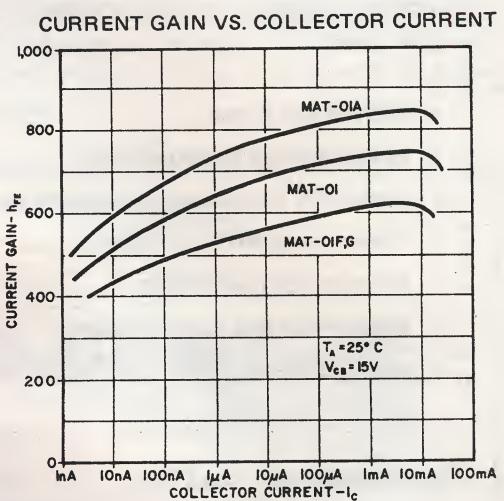
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MATCHED TRANSISTOR PAIRS AND PRECISION VOLTAGE REFERENCE

MAT-01 — ULTRA MATCHED DUAL TRANSISTORS

INDUSTRY'S TIGHTEST MATCHING SPECIFICATIONS!

- TIGHT LOG CONFORMANCE
- TIGHT V_{os} (V_{be} MATCH) 100 μ V MAX
- LOW TCV_{os} 0.5 μ V/ $^{\circ}$ C MAX
- TIGHT h_{FE} MATCH 3.0% MAX
- HIGH h_{FE} 500 MIN
- HIGH h_{FE} AT LOW I_c 590 @ $I_c = 10nA$
- VERY LOW NOISE 0.4 μ Vp-p MAX, 0.1 TO 10Hz
- REPLACES MOST DUAL TRANSISTORS WITH BETTER PERFORMANCE



ORDERING INFORMATION

Model*	Temp Range (°C)	Min BVCEO (V)	Max V_{os} (μ V)	Max TCV_{os} (μ V/ $^{\circ}$ C)	Max h_{FE} Match (%)	Min h_{FE} @ 10 μ A	Typ h_{FE} @ 10nA
MAT-01AH	-55/+125	45	100	0.5	3.0	500	590
MAT-01GH	-55/+125	45	500	1.8	8.0	250	430
MAT-01H	-55/+125	60	100	0.5	2.7	330	520
MAT-01FH	-55/+125	60	500	1.8	8.0	250	430

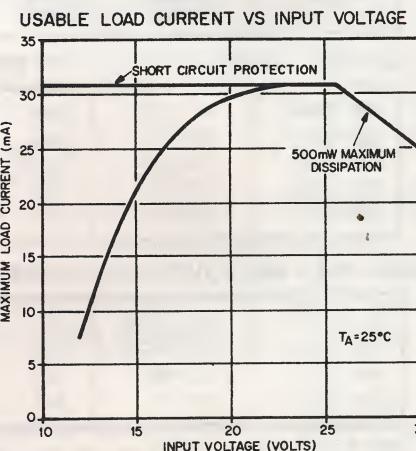
*H Suffix: 6 Pin TO-99 Type Package.

REF-01 — PRECISION VOLTAGE REFERENCE

ADJUSTABLE 10 VOLT OUTPUT

- EXCELLENT TEMPERATURE STABILITY 3 PPM/ $^{\circ}$ C
- LOW NOISE 20 μ V P-P (0.1 Hz TO 10 Hz)
- LOW POWER 15 mW
- WIDE INPUT VOLTAGE RANGE 12V TO 40V
- 0° TO +70° $^{\circ}$ C AND -55° TO +125° $^{\circ}$ C MODELS
- TYPICAL TURN-ON TIME TO 0.1% 5 μ sec
- LOW COST
- $\pm 3\%$ ADJUSTMENT RANGE

ORDERING INFORMATION



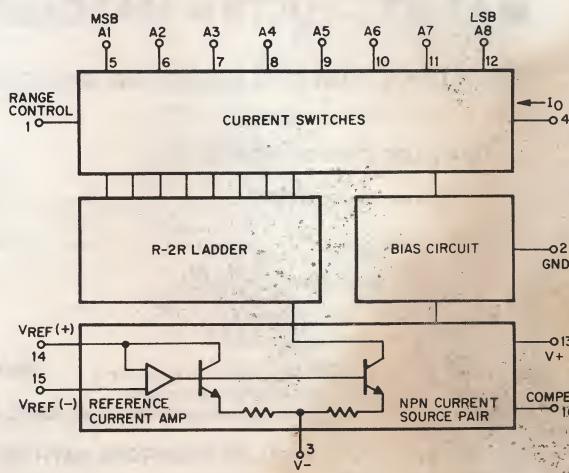
Model†	Temp. Range (°C)	Max Full Temp Output Change (%)	Min Output Adjust Range (%)	Max Noise 0.1Hz to 10Hz μ Vp-p	Min Input Voltage Range (V)	Max Line Regulation (ppm/V)	Max Load Regulation (ppm/mA)
REF-01AJ	-55/+125	0.15	± 3.0	30	+12 TO +40	100	80
REF-01J	-55/+125	0.45	± 3.0	30	+12 TO +40	100	100
REF-01EJ	0/+70	0.06	± 3.0	30	+12 TO +40	100	80
REF-01HJ	0/+70	0.17	± 3.0	30	+12 TO +40	100	100
REF-01CJ	0/+70	0.45	± 2.7	35	+12 TO +30	150	150

†J Suffix: 8 pin TO-99 package.

SSS1508A/1408A - 8 BIT MULTIPLYING D/A CONVERTER

IMPROVED DIRECT REPLACEMENT FOR MC1508/MC1408

- FASTER SETTLING 250 nsec
- LOWER POWER CONSUMPTION 157 mW
- LINEARITY GUARANTEED OVER TEMP RANGE
- COMPATIBLE WITH TTL, CMOS LOGIC
- OUTPUT VOLTAGE SWING +0.5V TO -5.0V
- HIGH SPEED MULTIPLYING INPUT 4.0 mA/ μ sec
- NO ADDITIONAL COST



SSS1408A/1508A
BLOCK DIAGRAM AND PIN CONNECTIONS

ORDERING INFORMATION

Precision Monolithics Part Number	Motorola Part Number	Temp Range (°C)	Relative Accuracy (%)	Package
SSS1508A-8Q	MC1508L-8	-55/+125	±0.19	All SSS1508A/1408A devices are packaged in hermetic 16 pin DIP.
SSS1408A-8Q	MC1408L-8	0/+75	±0.19	
SSS1408A-7Q	MC1408L-7	0/+75	±0.39	
SSS1408A-6Q	MC1408L-6	0/+75	±0.78	

SUPERIOR SECOND SOURCE OPERATIONAL AMPLIFIERS

IMPROVED PERFORMANCE * DIRECT REPLACEMENT VERSIONS OF POPULAR INDUSTRY STANDARDS

Model	Temp Range (°C)	Max Vos (mV)	Max TCVos (μ V/°C)	Max Ios (nA)	Max Ib (nA)	Min CMRR (dB)	Min PSRR (dB)	Main Gain (x 1000)	Package Options
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SSS 725 – INSTRUMENTATION OPERATIONAL AMPLIFIER

SSS 725A	-55/+125	0.1	0.6	1.0	70	120	114	1000	J, L, Y
SSS 725	-55/+125	0.5	1.0	5.0	80	120	106	1000	J, L, Y
SSS 725B	-25/+85	0.75	1.0	5.0	80	110	106	1000	J, L, Y
SSS 725E	0/+70	0.5	0.6	5.0	80	120	106	1000	J, Y
SSS 725C	0/+70	1.3	1.5	13.0	110	100	100	500	J, Y

SSS 741 – IMPROVED PERFORMANCE OPERATIONAL AMPLIFIER

SSS 741	-55/+125	2.0	—	5.0	50	80	80	100	J, Y
SSS 741G	-55/+125	5.0	—	25	100	70	77	50	J, Y
SSS 741B	-25/+85	3.0	—	5.0	50	80	80	50	J, Y
SSS 741C	0/+70	6.0	—	25	100	70	77	20	J, Y

SSS 747 – DUAL SSS 741 OPERATIONAL AMPLIFIER

SSS 747	-55/+125	2.0	—	5.0	50	80	80	100	K, M, Y
SSS 747G	-55/+125	5.0	—	20	100	70	77	50	K, M, Y
SSS 747B	-25/+85	3.0	—	5.0	50	80	80	50	K, M, Y
SSS 747C	0/+70	5.0	—	20	100	70	77	50	K, Y

SSS 1558/1458 – DUAL SSS 741 OPERATIONAL AMPLIFIER

SSS 1558	-55/+125	5.0	—	20	100	70	77	50	J
SSS 1458	0/+70	5.0	—	20	100	70	77	50	J

*Exact replacements also available. Request "PM" Data Sheets.

Package suffixes J: 8 Pin TO 99; K: 10 Pin TO 100; L: 10 Pin Flatpack; M: 14 Pin Flatpack; Y: 14 Pin Hermetic DIP.



GENERAL ORDERING INFORMATION

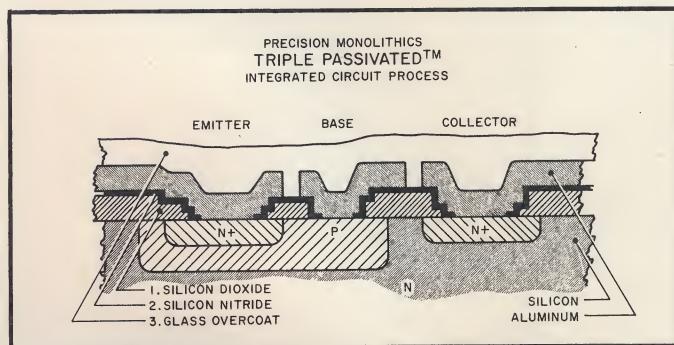
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SAVE MONEY THROUGH INCREASED YIELDS!

- Highest Yields 25°C Parameters Guaranteed
- Highest Performance Tight specifications
- Highest Reliability—Exclusive "Triple Passivation" Process
- Full Military Temperature Range Operation
- 100% Visually Inspected to MIL-STD-883A Method 2010.1B
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- Excellent Die Attach Thick Gold or Standard Backing

The superior performance of Precision Monolithics products are now available to the hybrid microcircuit designer. All chips are 100% electrically tested for all guaranteed DC parameters at 25°C and are 100% visually inspected to MIL-STD-883A Method 2010.1 Condition B. Each chip is protected with our exclusive "Triple Passivation" process

incorporating an advanced silicon nitride ion barrier plus a thick glass coating over the metalization. Chips are packaged in 100-cavity, waffle-pack carriers with an anti-static shield and cushioning strip placed over the active surface to assure extra protection during shipment. Precision Monolithics chips provide the highest performance available coupled with the lowest overall finished costs.



MIL-STD-883A PROCESSING

Dedicated to quality and reliability, PMI has incorporated processing and control techniques to assure product conformance to the requirements of MIL-STD-883A and MIL-M-38510A. Proof of conformance is provided by continuous Q.A. sampling. Complete process documentation and a well-equipped failure analysis lab, utilizing the latest in scanning

electron microscope technology, provide further controls. With this organization and dedication, PMI has provided devices for the highest reliability military and aerospace programs and now can offer off-the-shelf MIL-STD-883A Level B processed parts.

ORDERING INFORMATION

To order any PMI product, choose the model, grade, and package that meets your requirements; for example:

DAC-08AZ = 8 bit multiplying DAC-08, A grade (-55° to +125°C), 16 pin DIP package.

OP-02EJ = OP-02, E grade (0 to +70°C), TO-99 package.

Military temperature range models with standard MIL-STD-883A class B screening may also be ordered by inserting "883" between the model number and grade, i.e.:

DAC08-883-AZ = DAC-08AZ per MIL-STD-883A Level B
OP02-883-AJ = OP-02AJ per Mil-STD-883A Level B.

Consult your full line catalog, price list, or call the representative, distributor or direct PMI sales office nearest you for complete model and ordering information.

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TWX 910-338-0528



Precision Monolithics, Inc.

1500 Space Park Drive

Santa Clara, CA 95050

(408) 246-9222

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